APPAREL RESEARCH NETWORK (ARN) PROGRAM

Final Technical Report

Contract Number SP0103-02-D-0018/ Delivery Order 0003

ARN Supply Chain Management System for OCIE

Prepared for:

Defense Logistics Agency

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Prepared by ARN-Partner:

AdvanTech, Inc.
2661 Riva Road, Suite 1000
Annapolis, MD 21401
Telephone: 410-266-8000
Email: info@advantech-inc.com

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6. AUTHOR(S) Richard A. Perrin, Robert E. Bona, Dennis A. Brekhus, Carol E. Fraser	

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES): AdvanTech, Inc. 2661 Riva Road, Suite 1000 Annapolis, MD 21401	8. PERFORMING ORGANIZATION REPORT NUMBER: ARN-II AdvanTech, Inc. D.O. 0003

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13. ABSTRACT *(Maximum 200 Words)*
This Apparel Research Network (ARN) project report summarizes project activities that focused attention on Organizational Clothing & Equipment (OCIE) Inventories at Germersheim, Germany, and incorporated expanding the current VIM OCIE database to include Yokosuka and Pearl Harbor. It encompassed gaining visibility of Army owned OCIE assets using the functional VIM/Wholesale software application dedicated to OCIE items. The principal deliverables included: 1) Operator training for 3 Defense Supply Center Philadelphia personnel; 2) Training materials for DSCP personnel to effectively train other DSCP Item Managers; 3) On-line and hard-copy User Manuals/Help files; 4) A functional VIM/Wholesale software application dedicated to the OCIE items with visibility of Germersheim and the Army owned OCIE assets in Europe; 5) Visibility of Yokosuka and Pearl Harbor depots in VIM/Wholesale with management parameters formulated from analysis of available historical data; 6) Programs to cleanse Central Issue Facility (CIF)/Installation Support Module (ISM) data as CIFs are migrated from legacy ISM to Modernized ISM. Project activities also included development of capabilities for DOD DSCP ARN systems to receive data from all active ARMY CIFS (CONUS and OCONUS) and merge that data into the Asset Visibility Screens so the DSCP Item Managers have full visibility of both the retail and wholesale inventories.

14. **SUBJECT TERMS** Apparel Research Network (ARN); Integrated Retail Module (IRM), Clothing Initial Issue Point (CIIP); Supply Chain Management; Virtual Item Manager/Wholesale Local; Quality Logistics Management System (QLM); Organizational Clothing & Equipment (OCIE); Central Issue Facility (CIF); Installation Support Module (ISM).			15. **NUMBER OF PAGES** **48**
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Preface

This Final Technical Report (FTR) covers project work accomplished for the Apparel Research Network (ARN)/Customer Driven Uniform Manufacture (CDUM) of the Defense Logistics Agency (DLA), in conformance with the AdvanTech, Inc. contract number SP0103-02-D-0018, Delivery Order 0003 during the period 27 February 2003 to 30 June 2006.

The Short Term Project (STP) focused attention on the Organizational Clothing & Equipment (OCIE) Inventories at Germersheim, Germany, and incorporated expanding the current VIM OCIE database to include Yokosuka and Pearl Harbor. It encompassed gaining visibility of Army owned OCIE assets using the functional VIM/Wholesale software application dedicated to OCIE items. The principal deliverables were:

➤ Operator training for 3 Defense Supply Center Philadelphia personnel;

➤ Training materials in order for the DSCP personnel to effectively train other DSCP Item Managers;

➤ On-line and hard-copy User Manuals/Help files;

➤ A functional VIM/Wholesale software application dedicated to the OCIE items with visibility of Germersheim and the Army owned OCIE assets in Europe;

➤ Visibility of Yokosuka and Pearl Harbor depots in VIM/Wholesale with management parameters formulated from analysis of available historical data;

➤ Programs and scripts to cleanse the CIF/ISM data as the CIFs are migrated from the legacy ISM to the Modernized ISM.

➤ Capability for ARN to receive data from all active ARMY CIFS (CONUS and OCONUS) and merge that data into the Asset Visibility Screens so the DSCP Item Managers will have full visibility of both the retail and wholesale inventories.

➤ Management Reports as described and/or directed by the Program Manager;

➤ Monthly Interim Progress Reports; and,

➢ Monthly Contract Funds Status Reports.

ARN Program information is available from the ARN web site at http://arn2.com.

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1.0 EXECUTIVE SUMMARY

1.1 Overview

The Apparel Research Network (ARN) is a DLA program that provides R&D funding to improve military clothing supply chain operations. Military clothing comprises two major business units/segments: recruit clothing, and organizational clothing and individual equipment (OCIE). Prior to this project the ARN focused it's R&D on the recruit clothing business unit. Supported by ARN-developed systems, DLA successfully assumed retail inventory at five Army Clothing Initial Issue Points (CIIPs), two United Stated Marine Corps Recruit Depots (MCRDs), and the one Air Force Clothing Initial Issue Flight (AFCIIF) in the U.S. By assuming this inventory, DLA gained data on consumption, retail inventory levels, stock-outs, and delivery times. DLA used this data to improve forecasts and to streamline the flow of materials from manufacturers to the consumers. The net result achieved was improved delivery service with significantly less inventory.

1.2 Germersheim OCIE Support

The Short Term Project (STP) covered by this Final Technical Report focused investigation on expanding the view of the OCIE business unit. Phase 1 of the OCIE project gave visibility of the DLA owned inventory located in Germersheim, Germany; modified the menu structure within VIM to display OCIE inventory data; and utilized the VIM/Wholesale application to manage replenishment actions to Germersheim. Phase 2 expanded the OCIE view in VIM/Wholesale to include: (1) development of a Demand Allocation program to provide flexibility needed to support limited supply assets to OCONUS DLA depots, (2) determining how best to gain visibility of the 24 Army units and supporting consolidated Army CIFs in Europe, and (3) modification of current VIM/Wholesale functionality to support the expanded OCIE requirements.

The project required familiarity with the procedures of OCIE distribution in Europe and in the Pacific. While general procedures were gleaned from analogous CONUS operations, significant interaction with Army personnel in Kaiserslaurtern and at the selected base-level CIFs provided the detailed information for project completion.

At the time of project initiation, there were approximately 85 clothing related PGCs totaling 1900 individual NSNs being stored at the Germersheim depot. The dollar value on hand was $29 million and represented approximately 8 months of supply using an

average monthly sales of approximately $3.2 million. This depot processed approximately 4800 user requisitions per month and supplied approximately 42% of the total OCIE requirements to the European customers. In this initial phase of the OCIE project the focus was on the following:

➢ To investigate and duplicate for the Individual Equipment & Clothing CBU, Directorate of Clothing and Textiles the VIM QLM/Central functionality in use by Recruit Clothing, Directorate of Clothing and Textiles, providing the Individual Equipment & Clothing item managers a means of automatically generating redistributions to replenish Germersheim;

➢ To provide a basis for total asset visibility of the organizational clothing throughout the wholesale system; and,

➢ To provide a foundation for the planned conversion of the ARMY-owned organizational clothing to DSCP-owned inventory.

1.3   Yokosuka and Pearl Harbor

In addition to the support provided for operations based out of Germersheim, the Short Term Project (STP) focused attention on the OCIE Inventories at Yokosuka, Japan and Pearl Harbor, Hawaii. At the start of the project the following statistics were known:

Site	PGCs	NSNs	$ Value On Hand
Yokosuka NZZ	375	1347	$12.5 Million
Pearl Harbor NPZ	147	537	$1.93 Million

For the second part of the OCIE project the focus was on the following:

➢ To provide the Individual Equipment & Clothing item managers a means of automatically generating redistributions to replenish Yokosuka and Pearl Harbor; and,

➢ To provide the basis for the total asset visibility of the organizational clothing throughout the wholesale system.

1.4   Installation Support Module (ISM) Data Cleansing

The ARMY initiative to upgrade the decentralized CIF/ISM system to a centralized, Internet-based System was an ongoing effort. This CIF/ISM system has been used by the ARMY to manage their organizational clothing and maintain the individual soldier's clothing record.

Because of the decentralized nature of the current legacy CIF/ISM, there had been no centralized control of the assignment of ARMY LINs, sizes and NSNs. In order to migrate the CIFs to the new modernized system, the data for each CIF needed to be cleansed and the LINs, sizes and NSNs all needed be standardized.

The ARN Program Manager and the ARMY ISM Program Manager established a strategy to cleanse the CIF data by capitalizing on the OCIE asset visibility initiative of AdvanTech, Inc., and the experience of Information Technologies Consultants (ITC) with ISMs. AdvanTech, Inc. and ITC, using the ARN R&D contract, collaborated to complete the data cleansing in a timely and efficient manner. The major benefit of this initiative is the facility for each CIF's data to be automatically cleansed and standardized as that CIF is migrated to the modernized version of ISM.

There were two (2) deliverables on this project. The first was the necessary programs and scripts to cleanse the CIF/ISM data as the CIFs are migrated from the legacy ISM to the Modernized ISM. The second was that ARN was to receive the data from all active ARMY CIFS (CONUS and OCONUS). This data was merged into the Asset Visibility Screens so the DSCP Item Managers have full visibility of both the retail and wholesale inventories.

The project was begun on 15 September 2004. An initial meeting was held between AdvanTech and ITC on 28 September 2004 to discuss the data cleansing initiative and the processes required to have ITC push the current stock status and transaction history data into the AAVS DataMart from the ISM.

AdvanTech, Inc. and ITC completed Phase 1 of the Data Cleansing on 13 October 2005, and initiated the integration of ARMY-owned Assets into VIM Asset Visibility Screens. The updates to the ARMY-owned assets now occur on a weekly basis. Details of the data cleansing, progress reports, and discussion of issues is at Appendix C, Data Cleansing.

ITC furnished AdvanTech with electronic versions of the Stock Status and Transaction Detail for all CIFs.   AdvanTech incorporated this data into the VIM/OCIE asset visibility screens. This function was fully integrated into VIM by the end of November 2004.

Phase 2 of the project was initiated and proceeded on schedule to completion on 28 February 2005.

AdvanTech was also successful in integrating Fort Carson's ISM clothing record data into the IRM databases.

The Army's modernized ISM was deployed to all ARMY CIFs during the months of July and August 2005, including the CIFs at Forts Carson and Bliss, two locations where AdvanTech, Inc. has implemented the ARN Integrated Retail Management (IRM) system.   The data in the IRM systems at both Forts Carson and Bliss were updated with the new ARMY LINS, NSNs, and sizes. Provision of this data by ITC expedited the process of converting to Modernized ISM.

The principal tasks of the project were:

➢ Initial Assessment and Report.

- o Gather Preliminary Intelligence.
- o Collect Data.
- o Define ARN Systems Terms for the OCIE Operations.
- o Baseline and Coordination.
- o Develop Feasibility Report.
- o Submit Report.

➢ VIM/Wholesale Modifications.

- o Database and Program Conversion.
- o Current OCIE Systems Modifications Identified during Phase 1.
- o Demand Allocation.
- o New OCIE Modifications.

➢ Incorporate Army Owned OCIE Data from 24 Army CIFs in Europe.

- o Extract Data From AAVS DataMart and validate.
- o Populate the Wholesale Detail & Wholesale Stock Status Tables and validate.

➢ GO-Live and Post GO-Live Support.

- o User training.
- o GO-Live Turn-on.
- o Inventory monitoring and advisory support.

➤ Database & Program Conversions for Yokosuka & Pearl Harbor.

- o Establish Daily Scheduled Tasks for Converting Data from AAVS to VIM OCIE.
- o Establish Users and Program Authority.
- o System Testing and Program Revisions.

➤ Go-Live Support for Yokosuka & Pearl Harbor.

- o User Training.
- o Go-Live Turn-On.
- o Inventory Monitoring and Advisory Support.

➤ Data Cleansing of ISM.

- o Phase 1 and 2 Data Cleansing.
- o Complete integration of ARMY-owned Assets into VIM Asset Visibility Screens.
- o Project Management Monthly Reports and Meetings.

1.5   Summary of Results

➤ This R&D project automated replenishment of the DSCP depot at Germersheim Germany, which is responsible for replenishing all US Military facilities throughout Europe. Processes were instituted to better manage the approximately $29 million of organizational clothing on hand in Europe. Automated replenishment improved service levels for the customers in Europe and Asia, precluding the additional costs incurred by shipping supplies to the European installations from a depot in the Continental United States.

➤ This R&D project expanded the visibility of available OCIE assets in Europe into VIM/Wholesale plus incorporating asset visibility and support of operations in Yokosuka, Japan and Pearl Harbor, Hawaii.

➤ This R&D project developed and implemented the logic necessary to prioritize the redistribution of OCIE stock to all 3 overseas depot locations.

- ➤ This R&D project instituted processes that gave item managers the ability to shift supply assets to a particular theater of operations in order to better support special missions.

- ➤ Expansion of OCIE visibility in VIM/Wholesale, to include the current ARMY owned OCIE assets, gave DSCP item managers the ability to better determine stockage requirements at Germersheim.

- ➤ Expansion of OCIE visibility in VIM/Wholesale improved demand satisfaction and demand accommodation to the supported Army units, and consolidated Army CIF as well as military units supported from Yokosuka, Japan and Pearl Harbor, Hawaii.

- ➤ This R&D project established processes that facilitated eventual management of OCIE at the ARMY Central Issue Facilities (CIFS) in a manner similar to the methods used by the U. S. Army, U. S. Marine Corps, and the U. S. Air Force to manage recruit clothing.

- ➤ The data cleansing initiative standardized LINs, sizes, NSNs of OCIE items allowing each CIF's data to be automatically cleansed and standardized as that CIF is migrated to the modernized version of ISM.

- ➤ The data cleansing initiative positioned ARN to receive data from all active ARMY CIFS (CONUS and OCONUS). This data was merged into the Asset Visibility Screens so the DSCP Item Managers now have full visibility of both the retail and wholesale inventories.

2.0 TECHNICAL PROJECT APPROACH

The OCIE system was implemented using a technical approach similar to the one used when VIM/Wholesale was originally implemented for the Recruit Clothing items. The first part of that project called for VIM/Wholesale to manage the inventory at the San Diego 32nd Street Annex. This wholesale location supported not only the Marine Corps' west coast recruit depot, but also other Marine Corps and Navy installations around the San Diego area. VIM/Wholesale monitored inventory levels, recalculated reorder parameters based on changes in utilizations and generated either redistributions or back orders to ensure there was sufficient inventory staged in the San Diego Annex to support at least 80% of the requirements of those customers located in the San Diego vicinity.

For the Organizational Clothing items, Germersheim, Germany served as the initial test model. The approach was to use the same basic Internet based tools to manage this inventory as was done for the San Diego Annex. All of the required data is furnished from SAMMS and BSM through the C&T data warehouse, then through the AAVS DataMart.

VIM/Wholesale has been set up, on a daily basis, to compile the necessary data from the AAVS DataMart and generate the same basic data management reports. These reports include: Total Asset Visibility; Expected Zero Balance Report; Excess Inventory Report; A2A Redistribution Detail; Overdue Requisition Detail Report; and, the Daily Suggested Order List. The ESOC or special order functionality was also made available to the DSCP Organizational Clothing personnel.

The DSCP Organizational Clothing personnel were given functionality to review and, if necessary, modify the Daily Suggested Order List. This list and functionality was set up to generate after the Daily Suggested Order List had been generated for the Recruit Centers. This ensures that the priority for the commonly used items remain for the Recruit Centers. Once the Organizational Clothing Suggested Order List has been reviewed, VIM/Wholesale generates the A2A MILSTRIP documents for the redistributions or the A0A / DFL MILSTRIP documents for the Back Order/Create the Due-in transactions. This data is then passed to SAMMS and BSM through the Automated System for Cataloging and Ordering Textiles (ASCOT) FTP site that AdvanTech, Inc. and the ARN program set up specifically for the OCIE Clothing items.

Visibility of the OCIE wholesale level assets was accomplished for the DLA depot/distribution site at Germersheim, Germany. The next steps in gaining visibility of the OCIE pipeline was to: (1) determine how best to incorporate Army owned OCIE supply data, (2) determine the supply performance measures for OCIE support at the consolidated CIF and individual Army CIFs, (3) coordinate the transfer of data from Army legacy systems to the AAVS DataMart, and (4) modify VIM/Wholesale in order to account for and manage the OCIE within the recommended supply performance parameters. The approach also incorporated support of depot sites at Yokosuka, Japan and Pearl Harbor, Hawaii.

The most critical aspect of the STP was the initial data gathering and feasibility study. This was the basis and guideline for the actual system enhancement necessary to gain visibility of the Army owned OCIE data. A thorough understanding of the existing business model and development of the "to be" model was required. Performance criteria for an OCIE support mission was evaluated and recommendations made on how to define data elements in VIM/Wholesale in order to provide accurate pictures of the Total Asset Visibility, Excess Inventory Levels, Expected Zero Balance items, A2A Redistribution detail, Overdue Requisition detail, and Suggested Order Lists.

Based on the implementation plan, VIM/Wholesale was modified to display the Army data, and track and report on the logistics response time relative to the OCIE performance parameters.

2.1 Short Term Project (STP) Objectives

The customer's objective was to decrease the amount of Army OCIE inventory carried at DLA's Defense Distribution Centers (DDCs) and at the Army's OCONUS regional Central Issue Facilities (CIFs), while maintaining or improving delivery to and inventory stockage at OCONUS Army base CIFs. Improving inventory stockage included reducing backorders, decreasing the time required to respond to a base-level requisition, decreasing airfreight expenses to replenish stocks, and increasing customer service.

The objectives of the STP were to:

➢ Automate the replenishment process;

➢ Automate the management of the reorder objectives based on the sales from the depots;

➢ Provide the initial Total Asset Visibility screens of the organizational clothing throughout the current DSCP wholesale locations;

➢ Determine the best way to gain visibility of the Army owned OCIE assets in Europe;

➢ Develop a demand allocation prioritization program in order to prioritize redistributions to the 3 OCONUS DLA depot sites (Germersheim, Yokosuka and Pearl Harbor);

➢ Create enhanced functionality necessary in VIM/Wholesale to support the expanded OCIE requirements;

➢ Integrate the Army owned condition code "A" inventory data into VIM/Wholesale as "Wholesale Local Inventory";

➢ Determine the method of approach necessary to handle non-condition code "A" items; and,

➢ Perform data cleansing of the ISM to standardize size, NSNs, and LINs prior to Modernized ISM implementation and transition.

2.2 Scope of the Project

In addition to establishing visibility of the OCIE wholesale level assets for the DLA depot/distribution site at Germersheim, Germany in Phase 1 the STP also covered Phase 2 activities and the incorporation of Yokosuka and Pearl Harbor data into VIM Wholesale. Phase 2 focused on demonstrating full supply chain visibility and management for Army OCIE items distributed through the DDC Germersheim and the Army's Regional Central Issue Facility in Kaiserslautern. The demonstration also included at least two Army Europe base-level CIFs. The second phase instituted functionality for the OCIE business unit similar to what was accomplished in the recruit business unit when Fort Leonard Wood and Fort Sill recruit training centers were integrated into the VIM/Wholesale operating logic.

2.2.1 Requirements Assessment

AdvanTech, Inc. worked closely with DSCP personnel to compile an assessment of the depot operations. The assessment defined the individual requirements and steps necessary to fulfill each of the requirements. AdvanTech, Inc. also worked with LMI personnel to outline the strategies and success criteria associated with gaining visibility of the Army owned OCIE assets in Europe. A data dictionary was created for the OCIE project, as well as algorithms, logic for program modifications necessary for a successful implementation, and a strategy to incorporate the Army data.

2.2.2 Database and Program Conversion

AdvanTech programmers essentially copied the existing database structure and tables to a separate location on the server. This new OCIE database contained only those items used within the Organizational Clothing entities. This allowed the users to establish their own specific reorder objectives and subsequently allowed them to monitor those levels separate from the Recruit Clothing Item Managers. Minor modifications to VIM were necessary in order to properly capture and display data associated with Yokosuka and Pearl Harbor.

2.2.3 User Training and Documentation

AdvanTech personnel provided direct user training to the assigned DSCP personnel. Along with this training Internet-based User guides and help screens were provided.

2.2.4 ISM Data Cleansing

AdvanTech, Inc., with sub-contractor assistance, cleansed the ISM database and established centralized control of the assignment of ARMY LINs, sizes and NSNs. In order to migrate the CIFs to the new modernized system, the data for each CIF needed to be cleansed and the LINs, sizes and NSNs all needed be standardized.

2.2.5 GO-Live and post GO-Live Support

AdvanTech provided full support to DSCP personnel for the GO-Live and post Go-Live activities to ensure the success of the project.

2.3 Technical Approach Tasks

2.3.1 Initial Assessment and Report

This task provided intelligence gathering, data collection, and project feasibility analysis. AdvanTech, Inc. coordinated with other contractors and ARN partners in order to ascertain the extent of CIF operations assessment completed to date. AdvanTech, Inc. performed on-site assessment of CONUS CIFs as needed. Site visits and data gathering were conducted at Ft. Sill, Ft. Carson, Ft. Leonard Wood, Ft. Hood, Ft. Belvoir and Ft. Myers.

AdvanTech, Inc. coordinated with other contractors and ARN partners in order to ascertain the extent of OCONUS CIF operations assessments completed to date. AdvanTech, Inc. performed site assessments of the CIFs in Europe and Asia as needed.

AdvanTech, Inc., with assistance from LMI, gained the necessary permissions to view, gather, store, use, and display the data collected from legacy systems.

Based on available IT Gap Analysis reports and site assessments, AdvanTech, Inc. determined the necessary data available from Army legacy systems and determined the frequency and method of obtaining the data for ARN applications.

Based on operational assessment and logistics response time criteria, AdvanTech and LMI developed the OCIE performance measurements necessary for VIM/Wholesale report functions.

Based on the assessment data AdvanTech recommended VIM/Wholesale changes/enhancements, data element changes, definitions changes, interface requirements, frequency of data pulls, user training requirements and schedule, and validation criteria.

AdvanTech and LMI assessed the current business practice of accounting for non-condition code "A" Army owned OCIE inventory, and provided recommendations on how to incorporate this data into VIM/Wholesale.

LMI base-lined the existing performance. Selected metrics, such as inventory levels, lead-time, and customer service, were used to baseline the performance of the current OCIE supply chain for Army Europe.

AdvanTech and LMI jointly outlined operational findings and recommendations, baseline performance data, and logistics response time criteria recommendations.

The task sequence was as follows:

➢ **Initial Kick-off Meeting** – The meeting was held with appropriate DSCP and ARN personnel to detail the specific steps that would occur to implement the system.

➢ **Develop User Requirements** – Following the kick-off meeting, AdvanTech personnel compiled information gathered into detailed User Requirements. These requirements were incorporated into the Technology Report.

2.3.2 Database and Program Conversion

After the completion of Phase 1 of the OCIE project, 43 system change requests were created. These changes were necessary in order for the OCIE item managers to manage OCIE resources. The changes allowed the item managers to manage not only by PGC but also by NSN on an as needed basis. Three categories of changes were identified.

➢ Recommended Stock Transfers (17)
➢ Overdue Requisition Status (13)
➢ Miscellaneous (13)

AdvanTech, Inc. modified the existing Demand Allocation programs in order to provide a prioritization process whereby OCIE stock redistributions for the 3 OCONUS DLA depot locations can be managed and supported based on DSCP assigned/weighted criteria. The DSCP item managers were given the ability to assign a priority and percentage of material value for each of the three OCONUS DLA depot locations. Priority can further be assigned by PGC.

AdvanTech, Inc. made modifications to the VIM/Wholesale application in order to incorporate the Army owned OCIE data. This sub-task incorporated user documentation specifically for the OCIE users. All online help files that contained modified field definitions were rewritten. Two separate help files are maintained, one specific for OCIE functions.

As part of the daily update routines in place in VIM/Wholesale, data is pulled from the AAVS Datamart, reformatted, recompiled for use in the VIM/Wholesale tables. These daily update routines were modified to process the ARMY specific OCIE data.

The specific VIM/Wholesale tables were populated with the data pulled from the AAVS DataMart. The tables are specifically related to the Total Asset Visibility and weekly Suggested Order List. Similar to the recruit clothing model, this data was reformatted into the "Wholesale Local" management reports that could be accessed by the ARMY customers (i.e. Expected Zero Balance, Excess Inventory, Overdue Requisitions).

The task sequence was as follows:

- **Establish Separate VIM/OCIE Database Tables** - AdvanTech personnel established a separate unique database for the OCIE data in order to ensure complete separation from the Recruit Clothing information.

- **Establish Daily Scheduled Tasks for Converting Data from AAVS DataMart to VIM/OCIE Database** – All necessary daily scheduled tasks were established in order to compile the data coming from the AAVS DataMart into the VIM/Wholesale table that would be viewed by the OCIE DSCP Item Managers. As with the existing system these tasks commenced approximately 5:30 a.m. in order to ensure the data would be ready for the Item Managers' review no later than 8:00 a.m.

- **Program Modifications to Prioritize Redistributions** – Program modification was required to prioritize the redistributions between the Recruit Centers and the OCIE depot. This was done to ensure the Recruit Center requirements were satisfied before generating the redistributions for the Germersheim depot.

- **Program Modifications to Screens and Reports to Separate OCIE from Recruit Data** – AdvanTech personnel modified certain screens and reports to ensure the segregation of data between the Recruit Clothing and OCIE information.

- **Coordinate Linkages with VIM Menu Options with Modulant, an ARN Partner** – Modulant was required to establish a separate IPOP menu selection for the OCIE Clothing and re-route those OCIE users to the OCIE specific database tables.

- **Establish Users and Program Access Authority** – AdvanTech personnel worked with DSCP personnel to establish the users of VIM/Wholesale for the OCIE items. Each user grouping was assigned access to specific functions within the VIM/Wholesale application.

- ➤ **System Testing and Program Revisions** – AdvanTech personnel performed thorough testing of these functions prior to beginning the user training.

- ➤ **User Documentation Revisions** – User documentation was reviewed and reformatted specifically for the OCIE users. This included using specific OCIE items as examples.

2.3.3 AdvanTech & Sub-Contractor Data Cleansing of ISM

- ➤ **Data Cleansing.** Scripts were executed against production databases to pull all required tables from ISM. Created candidate NSN master and LIN master tables. Cross referenced table contents to FEDLOG and DLIS and updated accordingly. Performed additional manual data cleansing as necessary.

- ➤ **DLA Master CIF Database.** Created the database based on Installation Management Agency (IMA) Master CIF database, replacing nonstandard MCNs with standard NSNs, replaced site unique reference numbers with standard LINs where available from FEDLOG or DLIS, used FEDLOG or DLIS prices where available (otherwise used a single provisional price), and standardized Size, Long Nomenclature, and Short Nomenclature fields.

- ➤ **Property Book Officer (PBO) Data Cleansing Workbooks.** Produced database extracts in the form of worksheets for local PBOs to use to assist in the data cleansing effort where data situations unique to an installation occur.

- ➤ **Integrated ARMY-owned Assets into VIM Asset Visibility Screens.** ARN received the data from all active ARMY CIFS (CONUS and OCONUS). This data was merged into the Asset Visibility Screens so the DSCP Item Managers have full visibility of both the retail and wholesale inventories.

2.3.4 GO-Live and Post GO-Live Support

- ➤ **User training** - AdvanTech personnel provided comprehensive user training to three (3) DSCP personnel. This training covered all functional components of the VIM/Wholesale application.

- ➤ **GO-Live Turn on** - This covered all aspects of turning on the VIM/Wholesale application and ensuring the data flow was functioning properly

➢ **Inventory Monitoring and Advisory Support** - For approximately four (4) weeks after the GO-Live, AdvanTech provided user support and monitoring activities To ensure the success of this project.

2.3.5 Project Management

➢ **Project Tracking -** Included the daily and weekly coordination and monitoring of the deliverables, milestones and resources assigned to the STP.

➢ **Project Review and Follow-up -** Included impromptu meetings, briefings and Q&A sessions with the Program Manager and other parties associated with the STP.

2.3.6 Management Reporting

➢ **Management Reporting -** Reserved for any Daily, Weekly or Monthly Management Report as directed by the Program Manager

➢ **Interim Progress Report -** Provided interim progress reports to the Project Manager and the ARN participants as directed.

➢ **Contract Funds Status Report -** Provided regular reports to the Project Manager on the Status of Funds.

➢ **Meetings and Meeting Preparation -** Meetings for ARN team members for tasks other than training and project management coordination.

➢ **Travel -** Meetings for ARN team members for tasks other than training and project management coordination.

3.0   Project Schedule

The following table shows the project schedule for the implementation activities at Germersheim during 2002:

Task Description	Period Ending 5/31/02	Period Ending 6/15/02	Period Ending 6/30/02	Period Ending 7/15/02	Period Ending 7/31/02	Period Ending 8/15/02
Initial Assessment and Report	■					
Database and Program Conversion		■	■			
GO-Live and Post GO-Live Support				■	■	■

The following table shows the project schedule for expansion at Germersheim and implementation activities Yokosuka & Pearl Harbor during 2003:

Task Description	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Initial Assessment and Report									
Gather Preliminary Intelligence	■	■	■						
Collect Data		■	■						
Define ARN Systems Terms for the OCIE Operations	■	■							
Baseline and Coordination		■							
Develop Feasibility Report			■	■	■				
Submit Report				■					
VIM/Wholesale Modifications									
Current OCIE Systems Modifications Identified during Phase 1	■	■	■	■	■				

ARN Supply Chain Management System for OCIE

Task Description	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Demand Allocation	▓	▓							
New OCIE Modifications						▓	▓	▓	▓
Incorporate Army Owned OCIE data from 24 Army CIFs in Europe									
Extract Data From AAVS DataMart and validate			▓	▓	▓	▓			
Populate the Wholesale Detail & Wholesale Stock Status Tables and validate			▓	▓	▓	▓			
Go Live & Post Go Live Support									
User training							▓	▓	▓
GO-Live Turn-on									▓
Inventory monitoring and advisory support							▓	▓	▓
Database & Program Conversions for Yokosuka & Pearl Harbor									
Establish Daily Scheduled Tasks for Converting Data from AAVS to VIM OCIE	▓								
Establish Users and Program Authority	▓	▓							
System Testing and Program Revisions	▓	▓							
Go-Live Support for Yokosuka & Pearl Harbor									
User Training		▓	▓						
Go-Live Turn-On		▓	▓						
Inventory Monitoring and Advisory Support		▓	▓						

4.0   Summary of Results Achieved

- ➢ This R&D project automated replenishment of the DSCP depot at Germersheim Germany, which is responsible for replenishing all US Military facilities throughout Europe. Processes were instituted to better manage the approximately $29 million of organizational clothing on hand in Europe. Automated replenishment improved service levels for the customers in Europe and Asia, precluding the additional costs incurred by shipping supplies to the European installations from a depot in the Continental United States.

- ➢ This R&D project expanded the visibility of available OCIE assets in Europe into VIM/Wholesale plus incorporating asset visibility and support of operations in Yokosuka, Japan and Pearl Harbor, Hawaii.

- ➢ This R&D project developed and implemented the logic necessary to prioritize the redistribution of OCIE stock to all 3 overseas depot locations.

- ➢ This R&D project instituted processes that gave item managers the ability to shift supply assets to a particular theater of operations in order to better support special missions.

- ➢ Expansion of OCIE visibility in VIM/Wholesale, to include the current ARMY owned OCIE assets, gave DSCP item managers the ability to better determine stockage requirements at Germersheim.

- ➢ Expansion of OCIE visibility in VIM/Wholesale improved demand satisfaction and demand accommodation to the supported Army units, and consolidated Army CIF as well as military units supported from Yokosuka, Japan and Pearl Harbor, Hawaii.

- ➢ This R&D project established processes that facilitated eventual management of OCIE at the ARMY Central Issue Facilities (CIFS) in a manner similar to the methods used by the U. S. Army, U. S. Marine Corps, and the U. S. Air Force to manage recruit clothing.

- ➢ The data cleansing initiative standardized LINs, sizes, NSNs of OCIE items allowing each CIF's data to be automatically cleansed and standardized as that CIF is migrated to the modernized version of ISM.

- ➢ The data cleansing initiative positioned ARN to receive data from all active ARMY CIFS (CONUS and OCONUS). This data was merged into the Asset Visibility Screens so the DSCP Item Managers now have full visibility of both the retail and wholesale inventories.

5.0   Appendices

Appendix A – Definition of Terms & Acronyms

The following acronyms are used in this report and are provided to provide clarity of understanding for the reader.

- ♦ **ARN** – Apparel Research Network made up of selected industry and academic partners working together to develop innovative solutions for the Apparel industries support of military departments.

- ♦ **ASCOT** – Automated System for Cataloging and Ordering Textiles

- ♦ **ASTRA** - ARN Supply-chain Transaction Repository Audit.

- ♦ **C&T** – Clothing and Textiles Division of the Defense Supply Center Philadelphia.

- ♦ **CIF** – Central Issue Facility

- ♦ **DOS** – Day Of Supply.

- ♦ **DSCP – Defense Supply Center Philadelphia -** DSCP controls the procurement and distribution of Medical, Subsistence (i.e., food), and Clothing and Textiles commodities to Defense Logistics Agency (DLA) depots and stock record accounts, worldwide.

- ♦ **ESOC – Emergency Supply Operations Center –** This refers to orders that are processed through the Emergency Supply Operations Center at DSCP. ESOC orders processed for different sites are now handled via contractor support as part of regular maintenance support for customers using the ARN VIM/Wholesale Local systems.

- ♦ **HHT –** Hand-Held Terminal

- ♦ **MCRD-PI** – Marine Corps Recruit Depot – Parris Island

- ♦ **MILSTRIP** – Military Standard Replenishment System

- ♦ **NAP** – Network Access Point

- ♦ **NSN** – National Stock Number

- ♦ **OCIE** – Organizational Clothing & Equipment

- ♦ **OL** – Operating Level

- ♦ **OST** – Order Ship Time

- ♦ **QDR** – Quality Deficiency Report. These are used to track items that are outside acceptable standards for issue to recruits. These reports provide

for communication with DSCP Item Managers regarding problems of quality that are encountered.

♦ **QLM** – Quality Logistics Management^{TM} – Material Management inventory system supporting acquisition, issues and distribution and predictive forecasting.

♦ **QLM/Local** – The QLM software implemented as a "wholesale local" inventory management system supporting acquisition, distribution and predictive forecasting at Ft. Leonard Wood as a prototype for future sites. The system provides a "local" capability to manage wholesale inventory assets located at the CIIP including receipt and inventory adjustment processing.

♦ **RIC** – Routing Identifier Code – Refers to a code used in SAMMS for identification of location where materials are to be shipped.

♦ **RTC** – Recruit Training Center (includes Army CIIPs) – These are the facilities operated by the different departments of the military where new recruits are inducted for basic training.

♦ **SAMMS** – Standard Accounting and Material Management System - This system is used by the Defense Logistics Agency, Defense Procurement Support Center.

♦ **SSN** – Social Security Number – nine (9) digit number to identify a recruit

♦ **SWX –** Human Solutions' scan, body measurement extraction and and size prediction software ScanWorX

♦ **System Change Requests (SCRs) –** SCRs refer to the process and procedures that are used to track requested revisions to systems software as enhancements are requested or operational "software bugs" are identified during testing or use in production. These are tracked and managed through a system used to record: System Change Request title/description; detail/describe changes requested; points-of-contact; authority for approval/denial of SCR; programming assignments; and tracking of disposition resulting (acceptance/rejection) of requested change(s) to program(s).

♦ **VB –** Visual Basic

♦ **VIM –** The Virtual Item Manager (VIM) system incorporates operational data extracted from the SAMMS Clothing & Textile (C&T) server as the basis for the operational and decision support capabilities provided in a

single source of information for Item Managers at the retail (Recruit Training Centers) and wholesale (DSCP) level.

♦ **VIM/WL –** VIM Wholesale Local

Appendix B – Project Personnel

The following personnel were involved in various phases or tasks for this project. Each of these individuals played key roles and worked closely together in achieving the desired results from the integration of the 3D Whole Body Scanners to ARN VIM – IRM system and evaluation of the results.

Robert E. Bona – AdvanTech Systems Design Engineer

Bernie Johns – ARN Project Support

Frankie M. Mason – AdvanTech Network Systems Administrator

Richard A. Perrin – AdvanTech Project Manager

Julie Tsao – ARN Project Manager, DLA

Appendix C – ISM Data Cleansing

The contents of this appendix are as follows:

- Letter from ITC to AdvanTech, Inc., Subject: Completion of Phase 1 Data Cleansing

  - o (CIF) Data Cleansing Support, Purchase Order Number 4258001, Phase 1 Data Cleansing Progress Report

  - o White Paper, Handling of Certain Conditions During CIF Data Cleansing and Data Migration Activities

- (CIF) Data Cleansing Support, Purchase Order Number 4258001, Progress Report Activities Performed, Period from October 13, 2004 to November 5, 2004

- (CIF) Data Cleansing Support, Purchase Order Number 4258001, Progress Report, Activities Performed, Period from December 16, 2004 to January 14, 2005

- (CIF) Data Cleansing Support, Purchase Order Number 4258001, Progress Report, Activities Performed, Period from January 15, 2005 to February 15, 2005

- (CIF) Data Cleansing Support, Purchase Order Number 4258001, Progress Report

  Activities Performed, Period from February 15, 2005 to March 31, 2005

ITC
Information Technologies Consultants, Inc.

7918 Jones Branch Drive
Suite 230
McLean, VA 22102
Telephone (703) 827-9758
Facsimile (703) 827-5055
www.it-consultants.com

13 October, 2004

Advantech, Inc.
2568A Riva Road
Suite 101
Annapolis, MD, 21401

Attn: Mr. Robert Bona

Subject: Completion of Phase 1 Deliverables, Data Cleansing Support

References: Purchase Order Number 4258001
               Account Number 975-03

Attachments: (1) CIF Data Cleansing and Standardization, Overview of Scripts and Script
                   Execution Procedures
              (2) Copy of SRA Email accepting Transmitted Cleansed Data Base
              (3) White Paper to CSO on Data Cleansing and Standardization Issues
              (4) Monthly Progress Report, October 8 2004
              (5) Invoice Adv-0401

Dear Bob,

ITC has completed Phase 1 of the referenced contract. The required deliverables have been
produced and distributed as follows:

Deliverable	Advantech copy	SRA Copy	TNOSC copy
Script for Data Cleansing	Attached electronically	Not provided	Transmitted electronically.
Master List of LINs and NSN/MCNs	FTP'd to ftp.ct-dscp.com. Copy of SRA acceptance letter attached.	Placed on the "P:" drive of the SRA LAN, IAW SRA request	Not Provided
Table Images of Candidate CIF DB (note – at SRA request, Table images were loaded to Oracle, and exported to .dmp format)	Carson DB FTP'd to ftp.ct-dscp.com. All databases written to DVD and transmitted attached to this Letter.	Placed on the "P:" drive of the SRA LAN, IAW SRA request	Not provided

ITC

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7918 Jones Branch Drive
Suite 230
McLean, VA 22102
Telephone (703) 827-9758
Facsimile (703) 827-5055
www.it-consultants.com

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In addition, a number of issues were identified during Phase 1 performance that must be addressed for Phase 2 to successfully complete. A white paper discussing these issues was transmitted to Ron Sickles of the CSO. A copy of this white paper is attached.

As we discussed on the phone, the TNOSC is ultimately responsible for executing these scripts to support production migration. These scripts are embedded in databases resident on our computer. We plan to take the computer to TNOSC, review the scripts and supporting procedures with them, and finalize the scripts for use in Phase 2 based on their input. We are scheduled for travel to Fort Huachuca on October 28.

A copy of our invoice is attached. Please call me if you have any questions at 703-827-9758.

Sincerely,

Dave Richards,
President, Information Technologies Consultants, Inc.

(CIF) Data Cleansing Support
Purchase Order Number 4258001

Progress Report

Activities Performed, Period from September 20 to October 13, 2004

Executed scripts against production databases as of September 20, 2004. These scripts extracted all requested tables except a0924t from all production CIF databases. A0924T could not be included in these pulls for reasons of space and timing Separate pull scripts were developed for these tables. A0924T pulls are scheduled for October 14.

Created candidate NSN master and LIN master Tables. Populated these tables in accordance with the proposed methodology. Cross referenced table contents to FEDLOG and DLIS, and updated accordingly.

Met with CSO representatives, and performed additional manual data cleansing. Identified numerous issues to be addressed in Phase 2.

- Phase 2 cleansing issues that required CSO response were documented in a white paper and transmitted via email to CSO personnel.

- Phase 2 cleansing issues that required PBO intervention were included in initial extract scripts used to prepare site specific exception files for site unique cleansing.

Created a DLA master CIF data base in Access.

Developed scripts to populate the DLA Master CIF database based on the IMA Master CIF database. This process:

- Replaced non standard MCNs with standard NSNs
- Replaced site unique Ref numbers with standard LINs where available from FEDLOG or DLIS, or provisional LINs where standard LINs/NSLINs are not available.
- Used FEDLOG or DLIS prices where available, otherwise used a single provisional price.
- Standardized SIZ, Long Nomenclature, and Short Nomenclature fields, again using FEDLOG or DLIS data where available, or provisional standards otherwise.

Met with SRA representatives to determine the best way to transmit Phase 1 outputs. Based on SRA responses, determined that Oracle .dmp files would work best. Developed

a rudimentary (non-indexed) Oracle Database, and supporting routines for loading migrated data into the data base and producing .dmp files in 9i format as output.

Provided a sample Oracle 9i .dmp file to SRA for load validation. Validation was successful.

Discussed Script execution methodology with TNOSC personnel. Reached consensus on the acceptability of our planned methodology and scripts. Plan to review the Phase 1 product in person to ensure a smooth cleansing process.

Ran Cleansing Scripts for the 11 designated CIF databases.

Distributed script and data products to affected organization, in accordance with each organizations preferred distribution method. See Deliverable transmittal letter for details.

Planned Activities, Period from October 14, 2004 to November 12, 2004

Work with SRA data migration personnel as they use cleansed data to test their migration scripts. Adjust cleansing and standardization rules as necessary.

Work with SRA developers as they use migrated data to support internal testing. Adjust cleansing and standardization rules as necessary.

Work with CSO personnel to resolve issues identified in the Issue White Paper.

Using extract scripts, produce listing of non standard NSNs, LINs, and SSNs which require PBO cleansing actions. Identify in site specific outputs recommended cleansing actions. Transmit lists to affected PBOs via email, under CSO distribution.

Accompany CSO personnel on initial site visit to determine how well provided data and tools support site specific data cleansing.

Meet with TNOSC personnel to review the scripts, and script execution procedures. Revise scripts as needed for use and validation during Phase 2.

Continue updating the NSN and LIN master files to reflect results of ongoing cleansing and standardization activities.

White Paper

Handling of Certain Conditions
During CIF Data Cleansing and Data Migration Activities

CIFs worldwide are entering into a period of data turbulence.

- CIF data bases are being modernized concurrent with application modernization.
- CIF databases are being standardized, in preparation for database consolidation
- CIF data management is transitioning from PBO responsibility to CSO responsibility
- CIF operations must become standardized in order to respond effectively to the many concurrent and disparate modernization initiatives, from RFI, to ACU, to CIF consolidation, to expanded carry forward, to central issue by menu and MOS.

ITC has been retained via DLA to assist in cleansing and standardizing databases prior to the migration to modernized CIF ISM. SRA has been retained via PEO EIS to migrate standardized databases over six consecutive weekends to the modernized operational environment.

This turbulence offers both challenges and opportunities. Much like any physical move allows someone to organize their physical belongings and throw away items no longer needed, a data base migration allows, even requires, an organization to organize their data, and throw away obsolete data items.

The success of these efforts to cleanse and standardize OCIE data depends largely on:

- Implementing Controls that prohibit introduction of erroneous or non standard records into production database between October 15, 2004 and March 30, 2005.
- Providing feedback to site PBOs on error conditions within their databases that can be corrected by the PBOs during this period, and the PBOs making these corrections
- Providing tools by which PBOs can direct other data corrections to occur in their production databases (e.g., convert MCNs to NSNs)
- PBOs understanding what happens if they do not clean their data. In particular, the rules for handling error conditions during production migration, as applied by ITC's cleansing and standardization scripts, and SRA's migration scripts.

This white paper addresses default data cleansing/and standardization techniques, and identifies PBO or CSO actions that can improve this process. SRA has separately produced a document identifying data migration rules, which applies to the migration process.

Issue 1 – NSNs/MCNs

Issue 1a – Adjusting NSNs whose stockage/issue levels fall below threshold values

After the initial data cleansing effort, there are still thousands of NSNs in use through the CIFs that do not correlate to FEDLOG NSNs. Many/most of these are items stocked or on clothing records in very small quantities. Items below a threshold value will not be standardized or migrated (effectively cleansed by deletion). Threshold items are determined by LIN, not by NSN, so small quantities of odd sized items should NEVER be below a threshold value. The currently approved threshold value is any LIN with fewer than 100 items or less than $1000 in inventory value. These thresholds may be modified in response to PBO concerns.

ITC will provide each PBO a report identifying which NSNs (and local ref nums) fall within a standardized LIN/NSLIN grouping that falls below the threshold, and would not be migrated based on current rules. PBOs may request that a particular NSN be maintained despite being the threshold value. PBOs may conduct appropriate adjustment transactions to remove onhand quantities of such items (e.g., send extremely old stock to DRMO). PBOs may contact soldiers with these items on their clothing records or hand receipts, and initiate DXs or AARs.

If PBOs do not perform these corrective actions, during the running of the cleansing/standardization scripts on approximately Feb 15, these items will be dropped from the property book, dropped from the inventory, dropped from the item master file (NSN_Master), and dropped from all clothing records and hand receipts.

The affect of dropping these items will be most noticed at the next year inventory, as inventory value will drop by an associated amount from the preceding year's inventory.

Issue 1b – Adjusting NSNs in historic data

The current plan is to convert local MCNs to NSNs as each production data base migrates. The MCNs will be converted in master files, property books, hand receipts, clothing records, and laundry/maintenance tickets. There are no MCNs expected in the requisition table.

There are two tables that hold historic data – the A0919T (transaction log) and the A0924T (Daily transaction summary). While the current plan has been to convert MCNs to NSNs in these tables as well, this may not work for several reasons. Foremost, these tables are used to support ad hoc inquiries into specific historic records by the NSN or MCN used at the time of the transaction. Without incorporating a cross reference of old and new NSNs into the database, these inquiries will not work after modernization if the MCNs are converted. However, if the MCNs are not converted, the integrity checks in the database will prevent these records from loading.

Possible solutions include:

- Convert MCNs, but add a field to support cross references between old and new NSNs. This will require coding and database changes, and changes to the cleansing scripts.

- Convert MCNs to NSNs for the last year of data (the period for which records should be kept. The new production database will be internally consistent using standardized data. No additional coding, database or cleansing changes are required. Queries against historic migrated data using obsolete MCNs would not work. Queries against older data would be handled off line (see option 3 below).

- Maintain all historic data (pre-migration) outside the database. This will require that historic data be loaded into a separate, simplistic database to support inquiries. No programming, database or migration changes would be needed, as ad hoc and reporting had already been allocated to power users. The current database structure will support ongoing operations based on the migrated NSNs. However, for inquiries spanning the migration (periods before and after migration) two inquiries would be needed.

A decision on how to handle these two tables is needed. We need guidance from CSO, but understand that CSO may need to first consult with other affected parties.

1c – Stopping the introduction of Local MCNs into production databases

Each PBO currently has the ability to add MCNs/NSNs, and does so whenever new OCIE must be locally managed. Unfortunately, PBOs tend to add local MCNs rather than rely on standard NSNs. Any MCNs added after September 20 are NOT included in the first phase database delivered to the SRA contractor.

During the second phase, ITC will work to standardize existing and newly added MCNs. This work will be more successful if PBOs cease adding unnecessary MCNs. We recommend that CSO contact all PBOs by email, and promulgate a policy by which any newly needed MCNs/NSNs be forwarded to CSO, CSO enters these into the APG CIF database, and TNOSC disseminates the updates to the NSN master and a0903T tables to affected sites. This approach is also recommended for all new RFI and ACU issues.

10/13/2004   CIF Data Cleansing Issues   page 3 of 6

ARN Final Technical Report for Contractor: AdvanTech, Inc. GF-6168-02-D-0016/DO:0006 & Human Solutions GF-6168-02-D-0020/DO:0003

Issue 2 – LINs/NSLINs/Ref Nums

There are two current issues which need to be addressed regarding LINs.

Issue 2a - – Stopping the introduction of Local LINs into production databases

This issue is nearly identical to Issue 1c and has a similar solution. We recommend that CSO contact all PBOs by email, and promulgate a policy by which any newly needed LINs be forwarded to CSO, CSO enters these into the APG CIF database, and TNOSC disseminates the updates to the NSN master and a0903T tables to affected sites. This approach is also recommended for all new RFI and ACU issues.

Note that LINs must be standardized prior to entering any new NSNs related to the LIN.

Issue 2b – Early Finalization of Certain LINs

The bulk of soldier issue, and by far the bulk of standard menus of issue, are linked to what appear to be less than 100 LINs. It is important that these LINs be established early, and that CSO determine all related NSNs, and the appropriate disposition of certain NSNs within that LIN. This action has three consequences:

1. Standard Menus cannot be determined until standard LINS are determined
2. Many previously issued NSNs are no longer authorized for issue, and the appropriate action is for these NSNs to be identified, and associated quantities turned in to DRMO. PBOs will need a couple of months to adequately inventory older stocks, and package and ship these to DRMO(s).
3. Correctly linking NSNs to standardized LINs will minimize the remaining LIN/NSN associations that must be manually researched.

We recommend that CSO establish a first cut of their standard Reference master file. Note that previous agreements with SRA identified the CSO as fully responsible for providing this file prior to SAT (approximately 1 APR). Recommend the first cut be completed by December 1, 2004.

Issue 3 - Menus

At the present time, Menus are not being migrated. The operational assumption by SRA is that CSO will provide new, standard menus which should become the default for issuance by MOS. The operational assumption is that unit commanders will supplement (not replace) these standard menus with locally required additional issue. These operational assumptions are consistent with pending plans to issue OCIE centrally based on a soldier's rank and MOS (and possibly other factors).

If standard menus are to be provided, they should all be provided to the data standardization team NLT February 1. As standard menus will require standard LINs (or NSLINs), the data cleansing team will need to validate the mapping of all menus to all LINs, and all LINs to NSNs in the standardized NSN_Master.

If standard menus are NOT to be provided, then PBOs will need to individually enter their locally required Menus into the modernized CIF database prior to conducting any initial issue, or additional issue by menu. Since these are the bulk of all issues, in essence, PBOs would need to create menus prior to beginning operations on modernized CIF ISM.

If the CIF PBOs, under the second option above, merely retype the existing menus, it would be far more efficient to migrate these menus instead. Cleansing and standardizing these menus is not a part of the current task order (based on SRA's approved data migration plan), and this would need to be added. Cleansing would consist of PBOs:

- Identifying and deleting menus that are no longer needed
- Ensuring that the correct/current LINs are assigned to each menu
- Adjusting quantities of LINs authorized by each menu, as necessary.

Standardizing would consist of the Cleansing team replacing local reference number with standardized LINs/NSLINs as appropriate for each retained menu.

Issue 4 – Clothing Records

A large number of soldiers currently have active clothing records at multiple CIFs. In some cases, this may be valid (e.g., a soldier is TDY to a second site and received additional issue at that site). For valid duplicate records, SRA has established rules for use in migration that should result in correctly migrated data.

However, in most cases, it appears that one of the records is outdated, and that the soldier improperly cleared. In these cases, the PBO should clear the soldier from the installation, and perform adjustment transactions as necessary to properly account for the items that the soldier carried forward. Otherwise, the soldier will have an incorrect clothing record in the modernized CIF database that will have to be manually corrected after the fact –typically when the soldier is in line trying clear an installation!

ITC can support this effort by identifying all soldiers at a site who also have records at a second site. We recommend the CSO direct PBOs to eliminate duplicate clothing records to the maximum extent possible.

(CIF) Data Cleansing Support
Purchase Order Number 4258001
Progress Report

Activities Performed, Period from October 13, 2004 to November 5, 2004

Met with SRA personnel to review previously provided extracts. Received and reviewed a file ("DupLINs_SIZ.lst) containing LIN/SIZ combinations that pointed to two or more distinct NSNs at different sites. These are to be handled using a Category Item Code (CIC) to indicate "older" issue and "newer" replacement" items, or otherwise distinguish between two items that are managed as a single item. The CIC does not exist in the legacy application or database, but does exist in the modernized data base. ITC will modify its legacy NSN_master master file to include a CIC field, assign provisional CICs for all LINs identified in the referenced files, and work with CSO to establish a permanent coding scheme for CICs.

Met with TNOSC personnel at Fort Huachuca to review the scripts by which data cleansing/standardization can be accomplished during migration. TNOSC personnel enthusiastically supported the current approach – affirming emails have been previously forwarded. TNOSC personnel did request on site support during the Feb 15 execution of these scripts, and this matter has been referred to DLA/Advantech for the appropriate response, inasmuch as the current tasking does not include on site support.

Produced a series of database extracts that highlight required cleansing activities that should be performed by PBO personnel. Extracts were formatted into a series of Excel worksheets, and bundled into "PBO Data Cleansing Workbooks". While the number of worksheets per workbook may vary depending on unique situations encountered in each site's database, in general, there are three logical worksheets:

–   The Ref_Master worksheet highlights provisional reference numbers assigned to items for which we cannot determine an equivalent Army LIN.
–   The NSN_master worksheet highlights MCNs for which we cannot determine an equivalent NSN in FEDLOG or DLIS.
–   The Duplicate_SSNs worksheets highlights SSNs that have active clothing records at more than one CIF.

Met with DOL and CIF personnel at Fort Huachuca to review the PBO data cleansing workbooks. CIF Personnel reviewed all worksheets, and agreed that the presented information was useful, usable and valuable. No changes in content or format were requested.

Met with CIF personnel at Fort Carson, in concert with a data team from Clothing and Services Office. We reviewed the Carson PBO Workbook for content and format, and identified corrective actions for entries in the NSN-Master, Ref_Master and supporting worksheets. The CSO team took the lead for documenting those findings which required back end data base support for correction (e.g., removing archaic NSNs that still exist on soldier clothing records) via annotated workbooks transmitted back to ITC. This approach seems appropriate, as ITC is not tasked to directly visit PBOs, and the CSO team is apparently so tasked. As of the time of submitting this progress report, ITC has not received CSO feedback from Fort Carson.

Telephonically coordinated with the CSO team at Fort Drum. The Fort Drum CSO team left for Fort Drum without requesting or coordinating receipt of the Drum PBO Workbook. A copy of the Drum workbook was transmitted from Carson through Ron Sickles of the CSO for forwarding to the CSO team at Fort Drum. The Fort Drum POC apparently printed only a filtered subset of the NSN-Master worksheet, and provided that to the CSO team. The CSO team worked only the NSN master issues, and did not address any other data cleansing activities while at Fort Drum. ITC provided assistance on addressing these other issues with Fort Drum via telephone.

Established new rules for cleansing and standardization.:

– A number of RFI items were listed as needing standardization because they were too new for FEDLOG or DLIS. CSO personnel agreed to work with PEO Soldier to obtain an authoritative list of RFI items. ITC agreed to enter these items into the APG CIF database, then to provide scripts which would append these items to the NSN_Master in each production CIF database. This will minimize PBO entries, and eliminate non standard prices, sizes and nomenclature, plus it will standardize associated reference numbers at all sites.
– A routine is being developed by which individual NSN_Master's prices will be updated to the most recent FEDLOG prices. This will minimize field discrepancies between sites.
– A large number of MCNs appear to have been created to account for special order or special sizes of items. In concert with the Carson CSO team, it was determined to create a standard MCN for every sized LIN, then to map every site's MCNs under that LIN to this newly created, standard MCN.
– A CIC field will be added, and provisionally filled in, for every LIN which has multiple NSNs (per size).
– A blank field (titled "remarks") will be added to the three primary worksheets, allowing for the CSO team to annotate specific corrective actions (or indicate that the record is accurate) for every questionable record identified in the PBO workbooks.

Received a planned schedule for CSO visits from CSO personnel on Friday November 5. Discussed the advance data needs with CSO personnel via Telecon on Monday November 8. For the upcoming trips, ITC will provide the NSN_Master worksheets for the target sites of Bragg, Sam Houston, and Eustis, by Wednesday, November 7, with none of the above identified changes present. ITC will provide updated workbooks for these sites addressing the new rules ASAP after November 7.

Planned Activities, Period from November 8, 2004 to November 30, 20004

Work with CSO personnel to resolve issues identified in the Issues White Paper.

Continue producing PBO workbooks, and distributing to PBOs via email, under CSO distribution.

Continue updating the NSN and LIN master files to reflect results of ongoing cleansing and standardization activities.

Issues and Concerns

CSO personnel have not responded to any of the issues identified in the Issues White Paper. ITC knows of no forward plan for OCIE data management, requesting official NSLINs, or other key issues that must be resolved for data cleansing and standardization to be successful. No workaround is available.

CSO personnel have only minimally coordinated on the use of PBO workbooks to identify and correct data deficiencies at individual CIFs. Fort Carson coordination occurred on the fly at the Fort Carson PBO. The Fort Drum CSO visit was incomplete, as the CSO team was apparently unaware of the workbook's full contents. Possible workarounds – ITC could join the site visitation teams, providing in team expertise on the database and its extracts, or ITC could work directly with PBOs via email. Note – our proposal focused on direct email coordination with PBOs via email.

<p style="text-align:center">(CIF) Data Cleansing Support</p>
<p style="text-align:center">Purchase Order Number 4258001</p>
<p style="text-align:center">Progress Report</p>

Activities Performed, Period from December 16, 2004 to January 14, 2005

Produced a briefing for CSO personnel discussing open issues needed action or resolution to achieve an optimal level of data standardization. Briefed Ron Sickles of the CSO, plus five designees, on December 22. No response was received to this briefing, or to any of its identified issues.

Provided PBO Data Cleansing Workbooks to Larry Chorvas of USAREUR. Received feedback from selected European CIFs, which were incorporated into the master data base and will be reflected in the Feb 15 migration.

Did not receive a response from CSO regarding coordination on additional site visits. Elected to provide to Don Hasner of CSO all remaining workbooks for their direct transmittal to affected PBOs. Completed transmittals on Jan 6 and 10.

Met with Eric Grubaugh of G4 to discuss open issues. Mr. Grubaugh scheduled a briefing with G4, IMA, and CSO representatives to discuss army responsibility for resolving identified issues. Briefing/discussion sessions was held on January 14 at G4 location at the Pentagon.

The bridge database was updated to reflect PBO input from those sites who provided written response to site visits – (Forts Carson, Huachuca, Rucker, Sam Houston, and Hood).

The cleansing scripts and bridge database were modified to include a field called Category Identification Code (CIC) which is needed by the modernized database. Lacking Army definition of what CIC values are appropriate, the cleansing script was modified to assign CICs sequentially, whenever the rules indicated that a CIC was needed. Note – CICs are required to distinguish between two NSNs that map to the same LIN/SIZ combination.

Planned Activities, Period from January 15, 2005 to February 15, 20005

Incorporate responses to issues from Issues briefings into workplans.

Incorporate responses from CSO site visit teams and/or PBOs into bridge database to support cleansing and standardization during migration. Responses received by Feb 4 will be included in the Feb 15 pull.

Continue updating the NSN and LIN master files to reflect results of ongoing cleansing and standardization activities.

Issues and Concerns

There have been no responses to Issues White Papers or Issues Briefing materials. All identified issues remain open, and the ITC teams is proceeding with stated default handling of all related data conditions.

Reiterating the practical impacts of these issues from earlier progress reports:

- A larger percentage of migrated NSNs will be unvalidated local MCNs
- More LINs will be migrated as provisional LINs, opposed to NSLINS. Most sites will not recognize these provisional LINs.
- More soldiers will remain with duplicate clothing records, and these soldiers will have these records combined to form their active clothing record. These soldiers will likely have disputes during Turn-ins, as their signed clothing record will not match their electronic clothing record.
- More soldiers will have active clothing records in the migrated database, even though they have been gone from that installation, and even the army, for years.
- CIC codes will be meaningless, and will need to be meaningfully assigned after migration.

(CIF) Data Cleansing Support

Purchase Order Number 4258001

Progress Report

Activities Performed, Period from January 15, 2005 to February 15, 2005

Updated scripts to incorporate feedback from SRA (the modernization contractor) on the utility of the migrated data, and to correct several minor, systemic standardization errors. Added conversion of the A0907T tables to the scripts. Modified the script to use standardized LINs rather than legacy reference numbers in the migrated menus of the A0906T table.

Met with SRA and PEO EIS personnel to discuss issues associated with linking OCIE data cleansing activities with the migration of production databases. MFR report was forwarded for that meeting.

Provided SRA a summary of cleansing activities performed. Copy of email was forwarded to Advantek.

Add several hundred NSNs/MCNs to the bridge database.

Performed a dry run of the February 15 migration during week of Feb 7. Modified script for increased performance, as SRA has allocated only 4 hours for the scripts to run to completion during the production migration in June.

Packaged scripts for execution by the TNOSC.

Traveled to Fort Huachuca to train TNOSC personnel in script execution.

Produced, in collaboration with TNOSC personnel, the cleaned and standardized OCIE data base (on Feb 14).

Received feedback from CSO from JFK, and incorporated data changes into the bridge database.

Planned Activities, Period from February 16, 2005 to March 30, 20005

Support validation of the cleaned and standardized database by SRA as they perform various data migration validation activities.

Incorporate responses to issues from Issues briefings into workplans.

Incorporate responses from CSO site visit teams and/or PBOs into bridge database to support cleansing and standardization during migration. Responses received by March 24 will be included in the final March 30 pull.

Issues and Concerns

There have been no responses from G4, IMA or CSO on identified issues. All identified issues remain open, and the ITC team is proceeding with stated default handling of all related data conditions.

Reiterating the practical impacts of these issues from earlier progress reports:

- A larger percentage of migrated NSNs will be unvalidated local MCNs
- More LINs will be migrated as provisional LINs, opposed to NSLINS. Most sites will not recognize these provisional LINs.
- More soldiers will remain with duplicate clothing records, and these soldiers will have these records combined to form their active clothing record. These soldiers will likely have disputes during Turn-ins, as their signed clothing record will not match their electronic clothing record.
- More soldiers will have active clothing records in the migrated database, even though they have been gone from that installation, and even the army, for years.
- CIC codes will be meaningless, and will need to be meaningfully assigned after migration.

Travel to Huachuca was verbally authorized by Bob Bona. However, travel costs to date (approximately $3,000) exceed that allocated in ITC's proposal to Advantech, and a contract modification may be required.

SRA requested that the task order be extended through approximately September, so that ITC personnel are available for consultation during the production migration process. No estimate as to Level of effort was discussed.

(CIF) Data Cleansing Support

Purchase Order Number 4258001

Progress Report

Activities Performed, Period from February 15, 2005 to March 31, 2005

Updated scripts to:

- Allow Scripts to be run from any drive (per TNOSC request)
- Include Menu data from A0906T tables, and A0905T cross reference data

Updated bridge Database to:

- Make changes received on feedback forms from USAREUR, Fort Myer
- Add 140 additional NSN and associated LINs
- Categorize modular equipment into separate LINs for MOLLEs, Body Armor and ShelterHalfs. Recognize that this is an interim measure until modernized CIF is adapted to support component items.
- Include data on the newly established CIF in Winchester VA (Corps of Engineers)

Conducted and Distributed Additional Analyses to Support OCIE Issues Resolution

- Provided a series of data worksheets to G-4, PBO personnel
- Provided a briefing to G-4 personnel on issues related to non standard menus
- Provided weekly updates to selected site's data
- Provided updates to A0919T and A0924T table views

Resolved Issues related to the March 30 Migration

- Changes to NSN Master List blocked SQT environment upgrade – Resolution is to continue with Previous Approach of dump and replace modernization databases
- Established the interim approach to handling component items
- Worked with Luther Smith of CSO on CSO/FSA data management responsibilities

Produced Final (March 30) standardized database, and provided to SRA for use in creating the modernized SAT environment.

Planned Activities, Period from April 1, 2005 to April 30, 20005

Provide weekly extracts from updated bridge database.

Update the A0924T and A0919T tables in preparation for production migration.

Provide consulting support services as needed (16 hours budgeted) to support validation of the cleaned and standardized database by SRA, or to provide ad hoc query support.

Incorporate responses to issues from Issues briefings into workplans.

Issues and Concerns

Aberdeen PG's CIF has the same CIF identifier as Kosovo, and has not been included in the provided data. There is some concern that APG is not an active CIF. APG was not identified by SRA as a candidate site for migration. If they are determined to be an active site, ITC will migrate their data, standardize their Menus/LINs/NSNs/MCNs, and provide a script to TNOSC to supplement existing scripts. Since APG is not included in the SRA migration scripts, this approach is better than modifying our existing scripts (SRA will migrate APG as an add on, if they migrate APG at all).